

**In the Claims:**

1. (canceled)
2. (canceled)
3. (canceled)
4. (canceled)
5. (canceled)
6. (canceled)
7. (canceled)
8. (canceled)
9. (canceled)
10. (new) A material comprising epitaxial  $\text{Ba}_x\text{Sr}_{1-x}\text{TiO}_3$  formed as a layer on the C-plane of a sapphire substrate, wherein x has a value from 0 to 1.
11. (new) The material of Claim 10 wherein said layer is between about 100 and about 3000 nanometers thick.
12. (new) The material of Claim 10 wherein said layer is between about 300 and about 1000 nanometers thick.
13. (new) The material of Claim 10 wherein said  $\text{Ba}_x\text{Sr}_{1-x}\text{TiO}_3$  has a 111 orientation.
14. (new) The material of Claim 10 wherein said  $\text{Ba}_x\text{Sr}_{1-x}\text{TiO}_3$  is doped with an ion or ions that change its properties.
15. (new) The material of Claim 14 wherein said doping ions comprise cesium and bismuth.
16. (new) The material of claim 10 further comprising conductive electrodes for applying a bias or RF signal to the  $\text{Ba}_x\text{Sr}_{1-x}\text{TiO}_3$  layer.
17. (new) A material comprising epitaxial  $\text{Ba}_x\text{Sr}_{1-x}\text{TiO}_3$  formed as a layer on a sapphire substrate, wherein x has a value from 0.1 to 0.9.
18. (new) The material according to Claim 17 wherein x has a value from 0.3 to 0.7.
19. (new) The material according to Claim 17 wherein x has a value from 0.4 to 0.6.

20. (new) The material of Claim 17 wherein said layer is between about 100 and about 3000 nanometers thick.
21. (new) The material of Claim 17 wherein said layer is between about 300 and about 1000 nanometers thick.
22. (new) The material of Claim 17 wherein said  $\text{Ba}_x\text{Sr}_{1-x}\text{TiO}_3$  has a 111 orientation.
23. (new) The material of Claim 17 wherein said  $\text{Ba}_x\text{Sr}_{1-x}\text{TiO}_3$  is doped with an ion or ions that change its properties.
24. (new) The material of Claim 23 wherein said doping ions comprise cesium and bismuth.
25. (new) The material of Claim 17 further comprising conductive electrodes for applying a bias or RF signal to the  $\text{Ba}_x\text{Sr}_{1-x}\text{TiO}_3$  layer.